

## The Solar System

### Study Guide

#### Investigation 1: The Eight Planets

1. There are eight planets in the Solar System.
2. The four INNER PLANETS are: Mercury, Venus, Earth and Mars.
3. The Inner Planets are made of rock.
4. The four OUTER PLANETS are: Jupiter, Saturn, Uranus, and Neptune.
5. The Outer Planets are made of gases.
6. All of the planets revolve around the sun.
7. One revolution makes a year. It takes 365 days for Earth to move around the sun.
8. The Earth rotates on its axis. This makes up a day. A day is 24 hours.
9. The Solar System is made up of the Sun, planets, moons, asteroids, and comets.

#### Investigation 2: The Sun and the Earth

1. The sun is a star and the center of the Solar System.
2. The sun is the closest star to Earth.
3. The temperature on the surface of the sun is 5,500 degrees C.
4. Energy from the sun lights and warms the Earth.
5. Heat Energy allows us to feel warm.
6. Light Energy allows us to see.

#### Investigation 3: The Earth and Its Seasons

1. There are four seasons: winter, spring, summer, and fall.
2. The seasons depend on how the Earth is tilted facing the sun.
3. Winter - Earth is tilted away from the sun.
4. Spring - Earth is getting an equal amount of sun with the north warming up.
5. Summer - The Earth is tilted towards the sun.
6. Fall - Earth is getting an equal amount of sun but North is getting colder.

#### Investigation 4: The Phases of the Moon

1. The moon is full of craters and large flat plains covered with rocks and dust.
2. The moon rotates on an axis just like Earth.
3. The moon revolves around the Earth and takes about one month.
4. The moon reflects light from the sun.
5. The moon's gravity controls the tides in the ocean.
6. The moon goes through phases so you can see different shapes of the moon through the month.

7. The four phases of the moon are New Moon, Crescent Moon, Half Moon, and Full Moon.
8. In the New Moon phase you CANNOT see the moon.

#### Investigation 5: Movement of the Planets

1. Forces change how an object moves.
2. A force can make an object change direction or speed. Examples: Faster or Slower or Left and Right
3. Gravity pulls objects towards other objects.
4. Gravity makes things get pulled towards the ground.
5. The gravity from the sun pulls the Earth in its orbit.
6. Without gravity objects would float around.
7. The further you get from Earth the less you feel the pull of gravity.

#### Things to Know

- Lab Learner Vocabulary - Pages 1,12,26,38,47
- Inner and Outer Planets
- Phases of the Moon
- The difference between revolution and rotation \*\*\* Short Answer Question\*\*\*
- The Seasons and their features (in Copybook) \*\*\*Short Answer Question\*\*\*